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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,054	02/26/2004	Yukio Oguma	122.1582	3298

21171 7590 06/01/2006	EXAMINER
STAAS & HALSEY LLP	RAHMAN, FAHMIDA

	ART UNIT	PAPER NUMBER
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005	2116	

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/786,054	OGUMA, YUKIO
	Examiner	Art Unit
	Fahmida Rahman	2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 February 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 February 2004</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/17/2004</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-18 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 13, 14 are rejected under 35 U.S.C. 102(a) as being anticipated by AAPA.

For claim 1, Applicant admits that the following limitations exist in prior art:

An apparatus where an operating system read out from a selected device of a

multiplexed plurality of devices (D1, D2 of Fig 7) is started up for starting up the system,

comprising: a storing unit which stores environment data for setting a boot from said

plurality of devices (NM2), a boot control unit (M1) which decides on a boot device

based on the setting of said environment data and starting up said operating system

stored in said boot device, and a control unit (M4) which controls multiplexing of said

plurality of devices ([0050] of page 4), said control unit changing the setting of said

environment data ([0050] of page 4 mentions that M4 rewrites environment data) and

controlling switching to another device when an abnormality is detected in said boot

device ([0050] of page 4 mentions that D1 can be cut off if an abnormality is detected

and environment data is rewritten. Thus, a different device is switched to when an

abnormality is detected).

For claim 13, booting is executed by reading NM of Fig 7.

For claim 14, control unit 2 reads the OS from disk drive that is responsible for switching

as mentioned in[0050] of page 4.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2, 3, 7, 8, 9, 10, 11, 12, 15, 17, 18 are rejected under 35 U.S.C. 102(e) as being

anticipated by Lee et al (US Patent 6754818).

For claim 2, Lee et al teach the following limitations:

An apparatus (Fig 1) where an operating system read out from a selected device of a

multiplexed plurality of devices (104) is started up for starting up the system (abstract),

comprising: a storing unit (110) which stores environment data (118, 114, 120) for setting a boot from said plurality of devices (Fig 2), a boot control unit (106 and 108) which decides on a boot device (240) based on the setting of said environment data (210, 220) and starting up said operating system stored in said boot device (260), and a control unit (Fig 2 is a control routine. Thus, there is an associated control unit to execute the routine) which controls multiplexing of said plurality of devices, said control unit changing the setting of said environment data (240) and controlling switching to another device when an abnormality is detected in said boot device (lines 48-50 of column 2 mention that another boot image is selected when computer system hangs on a corrupted image)

wherein said environment data includes: first variable data including device setting data designating boot candidates for said plurality of devices (114), second variable data including index data designating a boot device based on said device setting data (120), and third variable data (118) in which a binary value indicating whether said multiplexing is valid or not is set (118 controls the multiplexing. 118 is linked to BIOS as mentioned in line 43 of column 3. 118 configured to select boot device. Thus, when there is no boot device available, 118 would return "false" to BIOS. In such a case, it can be considered that multiplexing is not valid).

For claim 3, the system follows the round robin approach. Thus, the device initially set in device setting data can be selected for booting. In addition, system clears the index data shown in 240.

For claim 7, system boots up when BISST returns a good selected boot device (i.e., multiplexing is valid) and index data changes to reflect the current boot device. The initial value of index data is the previous boot device.

For claim 8, system reports corrupted image and ensures booted into a good state (lines 14-15 of column 6).

For claim 9, second variable data is cleared to initial value

For claim 10, BISST returns "no" or false when there is no device available (i.e., plurality of devices are not set for redundant operation).

For claim 11, lines 16-19 of column 6 mention that corrupted boot image is removed until it is repaired. Fig 5 shows that only the current boot device is connected to BDP. Thus, the earlier failed boot device is cut off and a new device is connected to boot port.

For claim 12, 320 is a non-volatile memory and the settings can rewritten.

For claim 15, 260 shows the loading and initialization of operating system.

For claim 17, Lee et al teach the following limitations:

A method for starting up data processing system in which (Fig 1) an operating system read out from a selected device of a multiplexed plurality of devices (104) is started up

for starting up the system (abstract), comprising: storing (110) environment data (118, 114, 120) for setting a boot from said plurality of devices (Fig 2), deciding on a boot device (240) based on the setting of said environment data (210, 220) and starting up said operating system stored in said boot device (260), and controlling (Fig 2 is a control routine. Thus, there is an associated control unit to execute the routine) multiplexing of said plurality of devices and changing the setting of said environment data (240) and controlling switching to another device when an abnormality is detected in said boot device (lines 48-50 of column 2 mention that another boot image is selected when computer system hangs on a corrupted image)

For claim 18, Lee et al teach the following limitations:

A recording medium storing a program for starting up data processing system (Fig 1) in which an operating system read out from a selected device of a multiplexed plurality of devices (104) is started up for starting up the system (abstract), comprising the steps of: storing (110) environment data (118, 114, 120) for setting a boot from said plurality of devices (Fig 2), deciding on a boot device (240) based on the setting of said environment data (210, 220) and starting up said operating system stored in said boot device (260), and controlling (Fig 2 is a control routine. Thus, there is an associated control unit to execute the routine) multiplexing of said plurality of devices and changing the setting of said environment data (240) and controlling switching to another device when an abnormality is detected in said boot device (lines 48-50 of column 2 mention

that another boot image is selected when computer system hangs on a corrupted

image)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-6, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et

al (US Patent 6754818), in view of Wu et al (US patent 6105130).

For claim 4, Lee et al teach that the boot device is selected when BISST returns a valid

device and updates SBDID. However, Lee et al do not teach that the device is selected

when "not" bit is set.

Wu et al teach a system where booting is done from a designated device when "yes" is

set and from an initially set device when "no" is set (lines 17-27 of column 2 mention

that system boots from SCSI device if user input exists, otherwise booting is performed

from IDE device. That is equivalent to "yes"/"no" setting)

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of Lee et al and Wu et al. One ordinary skill in the art would have been motivated to boot when "no" is set, since that confirms the booting of the system.

For claim 5, the index data in SBDID is updated if BISST returns valid boot device.

For claims 6 and 16, system is booted when a good boot device is found.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fahmida Rahman whose telephone number is 571-272-8159. The examiner can normally be reached on Monday through Friday 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system.   Status information for published

applications may be obtained from either Private PAIR or Public PAIR.   Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                        Fahmida Rahman
                                        Examiner
                                        Art Unit 2116

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                          THUAN N. DU
                          PRIMARY EXAMINER